IFW

PTO/SB/08a (05-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 4

Complete if Known	
Application Number	10/695,623
Filing Date	10/25/2003
First Named Inventor	Guy Even
Art Unit	
Examiner Name	
Attorney Docket Number	

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	L07	US- 4,878,190	1989	H. M. Darley et.al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08b(05-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 4

Complete If Known	
Application Number	10/695,623
Filing Date	10/25/2003
First Named Inventor	Guy Even
Art Unit	
Examiner Name	
Attorney Docket Number	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	[1]	R.C. Agarwal, F.G. Gustavson, and M.S. Schmookler Series approximation methods for divide and square root in the power3 processor. In *Proceedings of the 14th IEEE Symposium on Computer Arithmetic*, volume 14, pages 116–123. IEEE, 1999	
	[2]	S. F. Anderson, J. G. Earle, R. E. Goldschmidt, and D. M. Powers. The IBM 360/370 model 91: floating-point execution unit. *IBM Journal of Research and Development*, January 1967	
	[5]	Marius A. Cornea-Hasegan, Roger A. Golliver, and Peter Markstein. Correctness proofs outline for Newton-Raphson based floating-point divide and square root algorithms. In *Proceedings of the 14th IEEE Symposium on Computer Arithmetic*, pages 96–105, April 1999. IEEE Computer Society Press	
	[6]	D. DasSarma and D. W. Matula. Faithful bipartite ROM reciprocal tables. In S. Knowles and W. H. McAllister, editors, *Proc. 12th IEEE Symposium on Computer Arithmetic*, pages 17–28, 1995	
	[7]	M. Daumas and D.W. Matula. Recoders for partial compression and rounding. Technical Report 97-01, Laboratoire de l'Informatique du Parall´elisme, Lyon, France, 1997	
	[8]	M. Daumas and D.W. Matula. A Booth multiplier accepting both a redundant or a non-redundant input with no additional delay. In *IEEE International Conference on Application-specific Systems, Architectures and Processors*, pages 205–214, 2000	
	[9]	G. Even, S.M. Mueller, and P.M. Seidel. A Dual Mode IEEE multiplier. In *Proceedings of the 2nd IEEE International Conference on Innovative Systems in Silicon*, pages 282–289. IEEE, 1997	
	[10]	G. Even and W.J. Paul. On the design of IEEE compliant floating point units. In *Proceedings of the 13th Symposium on Computer Arithmetic*, volume 13, pages 54–63. IEEE, 1997	
	[11]	G. Even and P.-M. Seidel. A comparison of three rounding algorithms for IEEE floating-point multiplication. *IEEE Transactions on Computers, Special Issue on Computer Arithmetic*, pages 638–650, July 2000	
	[12]	Guy Even and Peter-M. Seidel. Pipelined multiplicative division with IEEE rounding. In *Proceedings of the 21st International Conference on Computer Design*, October 13-15 2003	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08b(05-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 3 of 4

Complete if Known	
Application Number	10/695,623
Filing Date	10/25/2003
First Named Inventor	Guy Even
Art Unit	
Examiner Name	
Attorney Docket Number	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	[13]	Guy Even, Peter-M. Seidel, and Warren E. Ferguson. A parametric error analysis of Gold-schmidt's division algorithm. In *Proceedings of the 16th IEEE Symposium on Computer Arithmetic*, June 15-18 2003. Full version submitted to JCSS	
	[18]	Cristina Iordache and David W. Matula. On infinitely precise rounding for division, square root, reciprocal and square root reciprocal. In Koren and Kornerup, editors, *Proceedings of the 14th IEEE Symposium on Computer Arithmetic*, pages 233–240, April 1999. IEEE Computer Society Press	
	[19]	H. Kabuo, T. Taniguchi, A. Miyoshi, H. Yamashita, M. Urano, H. Edamatsu, and S. Kuninobu. Accurate rounding scheme for the Newton-Raphson method using redundant binary representation. *IEEE Transactions on Computers*, 43(1):43–51, 1994	
	[24]	P. Montuschi and T. Lang. Boosting very-high radix division with prescaling and selection by rounding. *IEEE Transactions on Computers*, 50(1):13–27, 2001	
	[28]	Stuart F. Oberman. Floating-point division and square root algorithms and implementation in the AMD-K7 microprocessor. In Koren and Kornerup, editors, *Proceedings of the 14th IEEE Symposium on Computer Arithmetic*, pages 106–115, April 1999. IEEE Computer Society Press	
	[31]	D.M. Russinoff. A mechanically checked proof of IEEE compliance of a register-transfer-level specification of the amd-K7 floating-point multiplication, division, and square root instructions. *LMS Journal of Computation and Mathematics*, 1:148–200, December 1998	
	[32]	M.R. Santoro, G. Bewick, and M.A. Horowitz. Rounding algorithms for IEEE multipliers. In *Proceedings 9th Symposium on Computer Arithmetic*, pages 176–183, 1989	
	[33]	E. M. Schwarz, L. Sigal, and T. McPherson. CMOS floating point unit for the S/390 parallel enterpise server G4. *IBM Journal of Research and Development*, 41(4/5):475–488, July/Sept 1997	
	[34]	E.M. Schwarz. Rounding for quadratically converging algorithms for division and square root. In *Proceedings of the 29th Asilomar Conference on Signals, Systems and Computers*, volume 29, pages 600–603. IEEE, 1996	
	[35]	P.-M. Seidel. High-speed redundant reciprocal approximation. *INTEGRATION, the VLSI Journal*, 28:1–12, 1999	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08b(05-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 4 of 4

Complete if Known	
Application Number	10/695,623
Filing Date	10/25/2003
First Named Inventor	Guy Even
Art Unit	
Examiner Name	
Attorney Docket Number	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	[38]	P. Soderquist and M. Leeser. Area and performance tradeoffs in floating-point divide and square-root implementations. *ACM Computing Surveys*, 28(3):518–564, September 1996	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.